

In re Application of DEWEY et al.
Serial No. 10/021,392

REMARKS

The Office action has been carefully considered. The Office action rejected claims 1, 2, 4-7, 9, 12-15, 17, 19, 20-27 and 30 under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,008,853 to Bly et al. ("Bly"). Further, the Office action rejected claim 3 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 5,832,508 to Sherman et al. ("Sherman"). Further yet, the Office action rejected claims 8 and 29 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 6,662,164 to Harrison et al. ("Harrison"). Still further, the Office action rejected claim 10 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 6,112,024 to Almond et al. ("Almond"). The Office action rejected claim 11 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 6,598,059 to Vasudevan et al. ("Vasudevan"). The Office action rejected claim 16 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 5,873,103 to Trede et al. ("Trede"). The Office action rejected claims 18 and 28 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 6,610,105 to Martin Jr. et al. ("Martin"). The Office action rejected claim 31 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 5,787,411 to Groff et al. ("Groff").

Regarding claims 32-41, the Office action rejected each of these claims twice. First, the Office action rejected claims 32-36 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 6,625,623 to Midgley et al. ("Midgley"). Finally, the Office action rejected claims 37-40 under 35

In re Application of DEWEY et al.
Serial No. 10/021,392

U.S.C. § 103(a) as being unpatentable over Bly in view of some combination of Midgley, Trede, U.S. Patent No. 4,503,499 to Mason et al. ("Mason"), and U.S. Patent No. 6,212,512 to Barney et al. ("Barney"). Second, the Office action rejected claims 32-36 and 41 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of U.S. Patent No. 6,272,547 to McWilliams et al. ("McWilliams"). Finally, the Office action rejected claims 37-40 under 35 U.S.C. § 103(a) as being unpatentable over Bly in view of some combination of McWilliams, Trede, Mason, and Barney. Applicants respectfully disagree.

By present amendment, claims 1, 21, and 32 have been amended for clarification and not in view of the prior art. Applicants submit that the claims as filed were patentable over the prior art of record, and that the amendments herein are for purposes of clarifying the claims and/or for expediting allowance of the claims and not for reasons related to patentability. Reconsideration is respectfully requested.

Applicants thank the Examiner for the interview held (by telephone) on January 25, 2005. During the interview, the Examiner and applicants' attorney discussed the claims with respect to the prior art. The essence of applicants' position is incorporated in the remarks below.

Prior to discussing reasons why applicants believe that the claims in this application are clearly allowable in view of the teachings of the cited and applied references, a brief description of the present invention is presented.

The present invention is directed to a system and method for automatically and transparently providing access to prior versions of files and/or folders in a

In re Application of DEWEY et al.
Serial No. 10/021,392

computer system. More specifically, one embodiment of the present invention is directed to a method for receiving a request to locate at least one version of a selected file or folder. The system may then automatically obtain a set of data corresponding to at least one prior version of that selected file or folder. Information about the prior version and accessibility to the prior version may then be returned wherein the information corresponds to the set of data in response to the request.

Thus, a user may request the version location through a shell user interface that enables the user to request I/O operations on enumerated files or folders. For example, if a user views the files in a folder hosted on a remote server, a task or command may be made available (i.e., by right-clicking) that may enable the user to retrieve prior versions of a selected file or folder. Selecting this task may cause an application programming interface or the like to communicate with the server to obtain the file's or folder's history, comprising a list of read-only, point-in-time shadow copies of the file or folder contents.

In one embodiment, a timestamp identifying each shadow volume may be returned when a file or folder is selected for version recovery. The individual volumes may be queried for file attribute information, such that the list can be filtered, whereby the user may select from a list that identifies files and folders that actually exist on shadow volumes. Filtering non-unique files may also be performed, so that the user may see only one version rather than multiple unchanged versions that may be available. Once the user may be provided with a list of available versions, a timestamp-identified version may be selected from the

In re Application of DEWEY et al.
Serial No. 10/021,392

list, whereby the selected version can be restored. In this manner, prior file or folder versions may be restored simply, rapidly, and with minimal expense.

Note that the above description is for example and informational purposes only, and should not be used to interpret the claims, which are discussed below.

Turning to the claims, amended claim 1 recites a computer-implemented method, comprising receiving a request directed to locating at least one version of a selected file or folder, automatically obtaining a set of data corresponding to at least one prior version of that selected file or folder, the set of data enabling the accessibility of the at least one prior version of the selected file or folder, and returning information corresponding to the accessibility of the at least one version of the file or folder in response to the request wherein selection of the at least one prior version of the file will cause the at least one version of the file to be replaced by the at least one prior version of the file.

The Office action rejected claim 1 as being unpatentable over Bly. More specifically, the Office action contends that Bly teaches receiving a request directed to locating at least one version of a selected file or folder. Column 3, lines 60-67 of Bly is referenced. Further, the Office action contends that Bly teaches returning information corresponding to the set of data in response to the request. Column 20, lines 60-67 and Fig. 5 of Bly is referenced. The Office action acknowledges that Bly does not teach automatically obtaining a set of data corresponding to at least one prior version of that selected file or folder. However, the Office action contends that this would have been obvious to a person skilled in the art at the time the invention was made because Bly teaches displaying a list of

In re Application of DEWEY et al.
Serial No. 10/021,392

different versions (previous version and updated version) of each entry for copying to a user folder. Applicants respectfully disagree.

As has been argued in the previous Office action response, applicants submit that the interpretation by the Office action of the teachings of Bly is flawed. Bly is directed, generally, toward a multi-user collaborative work system that is able to maintain a shared book of related structured data objects that many users may simultaneously work with and update. See column 18, lines 14-24. As such, the shared book contains several entries which are defined in Bly as parts of the publication. That is, the entries are not versions of the same parts but rather different parts of the same shared book. See column 18, lines 60-67. As the individual parts (entries) are modified by a user, the newly modified version may be uploaded to the server containing the shared book such that the older version is replaced (*i.e.*, erased). In fact, the system in Bly specifically will not allow two versions of the same type of structured data object. See column 18 lines 50-51. The system in Bly does, however, maintain a record that the entry was modified, but this data (stored in an Entry Details property sheet) is merely indicative of the fact a modification took place. The actual modification or any previous version of the entry is simply not available in the system of Bly. See column 20, lines 60-67.

Thus, several patentable differences between the prior art of record and the recitations of claim 1 remain as argued in the previous Office action response. First, claim 1 recites automatically obtaining a set of data corresponding to at least one prior version of that selected file or folder that may be maintained such that the prior version's data is accessible. That is, the prior version is said to be accessible

In re Application of DEWEY et al.
Serial No. 10/021,392

in that the prior version may be retrieved and restored. The system in Bly does **not** maintain any prior version, thus, the prior version cannot possibly be accessible.

Second, claim 1 recites locating at least one version and then automatically obtaining a set of data corresponding to at least one prior version. That is, when a file or folder is first requested, not only is the location of the file or folder obtained, but also data about prior version is automatically assembled. In contrast, Bly does not teach automatically assembling the prior version list. Rather, when a user selects the entry property sheet, (and only after the user identifies the exact location of the initial file) then a list of revisions is presented (although the actual versions corresponding to the revision history are not available because they were not stored anywhere). As such, the system of Bly does not automatically obtain a set of data corresponding to at least one prior version as recited in claim 1.

Finally, Bly teaches away from the recitations of claim 1 in that it is desirable in the system of Bly to not store previous versions of entries precisely to avoid the possibility of multiple users modifying entries that are not the most current entry. That is, it the aim of the system of Bly to not allow users to access older versions of entries because to do so would eliminate the benefit of a multi-user collaborative work system if a user were able to bypass the guard against modifying entries that are not up-to-date. When prior art, in any material respect teaches away from the claimed invention, the art cannot be used to support an obviousness rejection. *In re Geisler*, 116 F.3d 1465, 1471, 43 USPQ2d 1362, 1366 (Fed Cir. 1997).

Nevertheless, claim 1 has been amended to recite the set of data enabling the accessibility of the at least one prior version of the selected file or folder, and

In re Application of DEWEY et al.
Serial No. 10/021,392

returning information corresponding to the accessibility of the at least one version of the file or folder and to the accessibility of the at least one prior version of the selected file or folder in response to the request wherein selection of the at least one prior version of the file will cause the at least one version of the file to be replaced by the at least one prior version of the file. That is, the information indicating that prior version exist also specifically enables the accessing of these prior versions and when selected, the prior version replaces the current version. Bly, as has been discussed above, does not store previous versions of the files being manipulated. Rather, Bly merely teaches storing an indication that the file has been changed, but the actual prior version is simply not accessible in that the prior version does not exist anywhere. Bly, whether considered alone or in any permissible combination with the prior art of record simply fails to teach or suggest the recitations of claim 1. For at least the foregoing reasons, applicants submit that claim 1 is patentable over the prior art of record.

Applicants respectfully submit that dependent claims 2-20, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 1 and consequently includes the recitations of independent claim 1. As discussed above, Bly fails to disclose the recitations of claim 1. Furthermore, none of the prior art of record, whether considered alone or in any permissible combination, teaches or suggests the recitations of claim 1, and therefore these claims are also allowable over the prior art of record. In addition to the recitations of claim 1 noted above, each of these dependent claims includes additional patentable elements.

In re Application of DEWEY et al.
Serial No. 10/021,392

For example, claim 7 recites that the shadow volumes are maintained on ~~a~~ at least one remote server. The shadow volume in the present invention contains ~~a~~ at least one prior version of the requested file or folder. As discussed above, Bly does not teach storing any prior versions anywhere. In fact, the cited portion of Bly in which the Office action bases its rejection simply does not teach anything about a shadow volume, a backup share, or anything remotely related to a duplicate version of the same data stored at two different locations. Further, all information stored with regard to a shared book resides on the same computer and not on a remote server as recited in claim 7. Applicants submit that claim 7 is patentable over the prior art of record for at least this additional reason.

As another example, claim 18 recites automatically obtaining a set of data comprising, requesting a list of one or more timestamps, each timestamp corresponding to a shadow volume, and further comprising, flagging a request to access the selected file or file attributes from that respective shadow volume to indicate that the request corresponds to a shadow volume. As discussed above, Bly does not teach automatically obtaining data corresponding to the prior version. Thus, Bly cannot possibly teach automatically obtaining list of one or more timestamps, each timestamp corresponding to a shadow volume. Applicants submit that claim 18 is patentable over the prior art of record for at least this additional reason.

Turning to the next independent claim, claim 21 recites in a computer network, a system comprising a local client, the local client having an interface configured to receive a request directed to locating at least one prior version of a

In re Application of DEWEY et al.
Serial No. 10/021,392

selected file, a network communication mechanism, a remote file server connected to the local client via the communication mechanism, the remote file server having at least one prior version of the selected file maintained thereon; and the interface communicating a request for file version information to the remote file server, the remote file server responding to the request by returning a set of data corresponding to the at least one prior version of the selected file maintained thereon, and the interface displaying information corresponding to the at least one version of the selected file for selection of the at least one prior version for restoration from the remote server, such that, when selected, the at least one prior version of the selected file replaces the at least one version of the file.

The Office action rejected claim 21 as being unpatentable over Bly. More specifically, the Office action contends that Bly teaches a local client, the local client having an interface configured to receive a request directed to locating at least one prior version of a selected file, a network communication mechanism. Column 3, lines 60-67 and column 28, lines 40-60 of Bly are referenced. Further, the Office action contends that Bly teaches a network communication system. Column 15, lines 19-24 of Bly is referenced. Still further, the Office action contends that Bly teaches a remote file server connected to the local client via the communication mechanism, the remote file server having at least one prior version of the file maintained thereon. Column 17, lines 50-52 of Bly is referenced. Further yet, the Office action contends that Bly teaches the interface communicating a request for file version information to the remote file server, the remote file server responding to the request by returning a set of data

In re Application of DEWEY et al.
Serial No. 10/021,392

corresponding to at least one the prior versions of the file maintained thereon.

Column 18, lines 13-25 of Bly is referenced.

The Office action acknowledges that Bly does not teach the interface displaying information corresponding to at least part of the set of data to enable selection of a file version for restoration from the remote server. However, the Office action contends that this would have been obvious to a person skilled in the art at the time the invention was made because each of Bly's entries are copied from the remote file to the desktop when requested. Applicants respectfully disagree.

Again, applicants submit that the interpretation by the Office action of the teachings of Bly is flawed. As was discussed above, Bly does not teach storing any prior version of its entries, rather just simple information about prior versions such as a timestamp of when the revision occurred or who the user was that performed the revision. In contrast, claim 21 recites a request directed to locating at least one prior version of a selected file. Thus, since the system in Bly does not teach storing prior versions, the location of a prior version certainly cannot be requested.

Further, claim 21 recites the interface displaying information corresponding to the at least one version of the selected file for selection of the at least one prior version for restoration from the remote server. Again, Bly does not teach storing any prior versions. Thus, no prior version, let alone a prior version chosen by the user can be restored. As was discussed above, Bly also teaches away from the recitations of claim 21 in that it is desirable in the system of Bly to not restore

In re Application of DEWEY et al.
Serial No. 10/021,392

previous versions on entries precisely to avoid the possibility of multiple users modifying entries that are not the most current entry.

Nevertheless, claim 21 has been amended to recite the remote file server responding to the request by returning a set of data corresponding to the at least one prior version of the selected file maintained thereon, and the interface displaying information corresponding to the at least one version of the selected file for selection of the at least one prior version for restoration from the remote server, such that, when selected, the at least one prior version of the selected file replaces the at least one version of the file. Accordingly, the information indicating that a prior version exists may be displayed simultaneous with the current version of the selected file using applicants' technique. Further, the displaying of the information specifically enables retrieval of prior versions that are stored such that when selected, the prior version of the file may be restored to replace the current version of the file. Bly, as has been discussed above, does not store previous versions of the files being manipulated. Rather, Bly merely teaches storing an indication that the file has been changed, but the actual prior version is simply not accessible in that the prior version does not exist anywhere. Bly, whether considered alone or in any permissible combination with the prior art of record simply fails to teach or suggest the recitations of claim 21. For at least the foregoing reasons, applicants submit that claim 21 is patentable over the prior art of record.

Applicants respectfully submit that dependent claims 22-31, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 21 and consequently includes the recitations of independent claim 21.

In re Application of DEWEY et al.
Serial No. 10/021,392

As discussed above, Bly fails to disclose the recitations of claim 21. Furthermore, none of the prior art of record, whether considered alone or in any permissible combination, teach or suggest the recitations of claim 21, and therefore these claims are also allowable over the prior art of record. In addition to the recitations of claim 21 noted above, each of these dependent claims includes additional patentable elements.

Turning to the last independent claim, amended claim 32 recites a computer-implemented method, comprising receiving a request to locate information corresponding to prior versions of a file or folder, obtaining a set of at least one timestamp, each timestamp corresponding to a shadow volume that may have a prior version of the file or folder maintained therein, for each timestamp in the set, requesting file or folder attributes from the corresponding volume, developing a list based on each response to the request for file or folder attributes, each entry in the list indicative of the accessibility of the file or folder associated with each entry, and providing prior file or folder version information and accessibility of the prior file or folder versions based on the list in response to the request to locate information, such that the information enables retrieval of a corresponding version of a file or folder in the list, and wherein selection of a prior version of the file replaces the most current version of the file.

The Office action rejected claim 32 as being unpatentable over Bly in view of McWilliams. The Office action cited similar sections of Bly as were cited previously with respect to the rejections of claims 1 and 21. Applicants respectfully disagree

In re Application of DEWEY et al.
Serial No. 10/021,392

for similar reasons as have been argued in the previous Office action response and discussed above.

The Office action has also rejected claim 32 as being unpatentable over Bly in view of Midgley. The Office action cited similar sections of Bly as were cited previously with respect to the rejections of claims 1 and 21. Applicants respectfully disagree.

Again, applicants submit that the interpretation by the Office action of the teachings of Bly is flawed. As was discussed above, Bly does not teach storing any prior version of its entries, rather just simple information about prior versions such as a timestamp of when the revision occurred or who the user was that performed the revision. In contrast, claim 32 recites obtaining timestamps corresponding to a shadow volume having a prior version of the file or folder maintained therein. Thus, since the system in Bly does not teach storing prior versions, the location of a prior version (*i.e.*, the shadow volume) certainly cannot be requested.

Further, claim 32 recites providing accessibility of the prior file or folder versions based on the list in response to the request to locate information. Again, Bly does not teach storing the prior versions, nor does Midgley. Thus, no prior version, let alone a prior version chosen by the user, can be accessed. As was discussed above, Bly teaches away from the recitations of claim 21 in that it is desirable in the system of Bly to not provide access to previous versions on entries precisely to avoid the possibility of multiple users modifying entries that are not the most current entry.

In re Application of DEWEY et al.
Serial No. 10/021,392

Nevertheless, claim 32 has been amended to recite that each entry in the list indicative of the accessibility of the file or folder associated with each entry, and providing prior file or folder version information and accessibility of the prior file or folder versions based on the list in response to the request to locate information, such that the information enables retrieval of a corresponding version of a file or folder in the list, and wherein selection of a prior version of the file replaces the most current version of the file. Significantly, each version may be accessible through each entry in the list, and, thus, a prior version may be restored by the user without the need to further search for where a prior version may be stored. Bly, whether considered alone or in any permissible combination with the prior art of record simply fails to teach or suggest the recitations of claim 32. For at least these significant reasons, applicants submit that the claim 32 is patentable over the prior art of record, including Bly, McWilliams, and Midgley, whether considered alone or in any permissible combination.

Applicants respectfully submit that dependent claims 33-41, by similar analysis, are allowable. Each of these claims depends either directly or indirectly from claim 32 and consequently includes the recitations of independent claim 32. As discussed above, Bly, McWilliams, and Midgley, whether considered alone or in any permissible combination, fail to teach or suggest the recitations of claim 32 and therefore these claims are also allowable over the prior art of record. In addition to the recitations of claim 32 noted above, each of these dependent claims includes additional patentable elements.

In re Application of DEWEY et al.
Serial No. 10/021,392

For at least these additional reasons, applicants submit that all the claims are patentable over the prior art of record, whether considered alone or in any permissible combination. Reconsideration and withdrawal of the rejections in the Office action is respectfully requested and early allowance of this application is earnestly solicited.

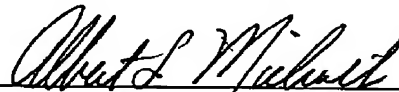
In re Application of DEWEY et al.
Serial No. 10/021,392

CONCLUSION

In view of the foregoing remarks, it is respectfully submitted that claims 1-4 are patentable over the prior art of record, and that the application is in good and proper form for allowance. A favorable action on the part of the Examiner is earnestly solicited.

If in the opinion of the Examiner a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney at (425) 836-3030.

Respectfully submitted,



Albert S. Michalik, Reg. No. 37,395
Attorney for Applicants
Law Offices of Albert S. Michalik, PLLC
704 - 228th Avenue NE, Suite 193
Sammamish, WA 98074
(425) 836-3030
(425) 836-8957 (facsimile)

In re Application of DEWEY et al.
Serial No. 10/021,392

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2950 Second Amendment


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